P 2/28

Declaration

I, Xi Yongzhi, hereby declare as follows:

The undersigned declares further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

I am the inventor and applicant of the US Patent Application Serial No. 10/534,538.

Although we submitted the polypeptide sequences (Genbank accession number AAK98621) on 19 July 2001 with the US US NCBI-Genbank, however, it had never been published on or after that day because we withdraw it immediately, the information respect the polypeptide was empty until we updated the new information on Feb 8, 2006. The detailed explanations are as follows:

I.Observation on relevant date of the sequences in the present patent.

As we know, US NCBI-GenBank, established by the National Center for Biotechnology Information of National Institutes of Health, collects and arranges numerous nucleotide sequences of genes and the corresponding amino acid sequences provided by biological scientists from every country in the world.

Here, we would like to remind the US examiner that: the date, mentioned in the LOCUS line recorded in the NCBI-GenBank data, is the date when the data is finally published. In most of cases, it is also the date when the data is first published. Another recorded date (see below) is the date when the sequence is submitted with the databank. It should be noticed that the two dates are not guaranteed under laws and the databank does not declare that the two dates are correct. (the relevant

original text: "The date on the locus line is the date the record was last made public. If the record has not been updated since being made public. the date would be the date that it was first made public. If any of the features or annotations were updated and the record was rereleased, then the date corresponds to the last date the entry was released. Another date contained in the record is the date the record was submitted (see below) to the database. It should be noted that none of these dates is legally binding on the promulgating organization. The databases make no claim that the dates are error -free." see liene Karsch-Mizrachi and B. F. Francis Ouellette. THE GENBANK SEQUENCE DATABASE. Chapter 3 , pp51, last paragraph; in Bioinformatics: A practical guide to the analysis of gene and proteins. Second Edition. Andreas D. Baxevanis & B.F.Francis Ouellette., eds. Copyright@2001 John Wiley & Sons, Inc. ISBNs: 0- 471-38390-2 (Hardback): 0-471-38391-0 (Paper): 0-471-22392-1 (Electronic)). Hence, the time or date for the sequences recorded in NCBI-GenBank is just provided to the reader for reference only, and cannot be used as the law grounds for arbitration.

II. Observation on the inventiveness of the sequence.

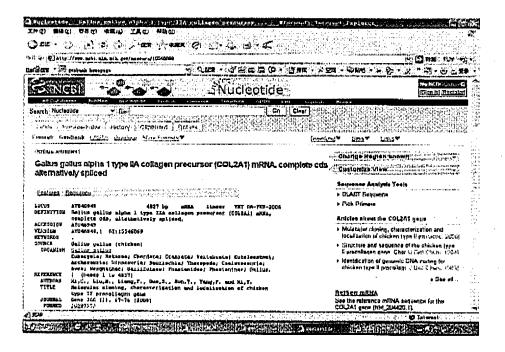
The accession number AAK98621 refers to the amino acid sequence of the chicken type II collagen which is translated by the mRNA (AY046949) of the chicken type II collagen. As we declared in June 29, 2009, AAK98621 and AY046949 indeed were submitted with US NCBI-GenBank on July 19, 2001. However, taken into multiple factors, we withdrew the submission of the two sequences from NCBI-Genbank immediately, and also withdrew the records on relevant sequences in NCBI-Genbank. Only the corresponding accession number and filing date are left. More importantly, NCBI-Genbank does not disclose these sequences (see NCBI-GenBank search page and detailed record Attachments 1 and 2). That is, AAK98621 is formally published on February 8, 2006, much latter than 2002 when the patent was filed. Hence,

the novelty and the inventiveness of the present patent is not taken away or interfered.

The publication date of AAK98621 and AY046949 are further checked as follows. The search results of all the history records of AAK98621 and AY046949, are separately summarized based on author and accession number:

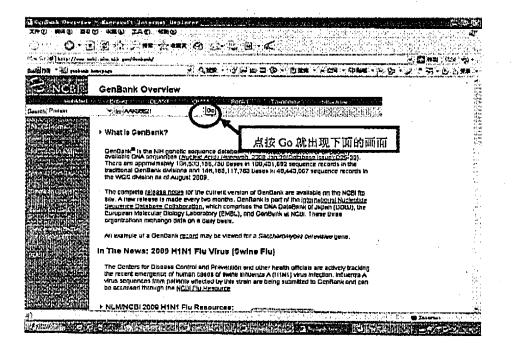
1. AY046949, version AY046949.1 GI:15546069, is the version of the mRNA of chicken type II collagen submitted on February 8, 2006, with a fragment of 4837bp in length. Although it is shown that version AY046949 is first published on July 19, 2001, no relevant nucleotide sequence can be found in NCBI-GenBank. Namely, the sequence submitted on July 19, 2001 is not published. Its novelty and inventiveness are preserved. AY046949 is formally published on February 8, 2006(see NCBI-GenBank search page below and detailed record attachment 1).

Search page for AY046946 A Gendand Heart Cont. The mark C. Interpretation to the state of the s 金柱(位) 宣音(5) 中国(中) 工具(5) 条計(6) 〇一四四年 至 安全 白 在 少 日一天 Set 25 (P) http://www.brbl.ule.nih.gov/Goabu m. 🖾 nad Link 😓 -CHE - WEST DO- BROWN - COME - CO - WIND - WIND Noni GenBank Overview PLEASURY NEED ➤ What is GenBank? 点技 Go 就出现下面的幽面 Cendent[®] is the Net genetic continues delebase, an empirated collection of oil publicly available DNA anguardos (1965-86, 2017, 1965-86), 2018 Jan 2018 (1978), 2018 Jan 2018 (1978), 2018 Jan 2018 Jan 2018 (1978), 2018 Jan 2018 traditional Genneck (IMVIONE and 14) the WQS OMEION 89 OF AUGUST 2009. The complete microscoping for the current version or Dentlank are available on the NCDI sparts. A new release is made ways too moture, Centlank is part of the <u>Listantianal published</u>: <u>Escuence. 2 notable 30,000 (pilotoping)</u>, which compress the DNA polashen of Japan (DODI), the Duropean Miscular Biology Leboratory (DMDL), and Centlank of NCDI. These three organizations acceptance in the sections of such contains the properties of the prop An awaimple of a Gentiank record may be wownd for a Seccharomyces cerevisive game, in The News: 2000 H1N1 Flu Virus (Swine Flu) The Centers for Dishalo Control and Prevention and other health officials are actively backing the recent emorgation of human cases of swine tradema. A (http://www.section.influence.A virus sequences from palantes whested by this strain are boing submitted to Centions and can be accessed through the <u>sufficial Resource</u>. NUMNODI 2009 H1N1 Flu Resources;



2. AAK98621, version AAK98621.1 GI:15546070, is the version of the amino acid sequence of chicken type II collagen submitted on February 8, 2006, with a fragment of 1420aa in length. Although it is shown that version AAK98621 is first published on July 19, 2001, no relevant amino acid sequence can be found in NCBI-GenBank. Namely, the sequence submitted on July 19, 2001 is not published. Its novelty and inventiveness are preserved. AAK98621 is formally published on February 8, 2006 (see NCBI-GenBank search page below and detailed record attachment 2).

Search page for AAK98621

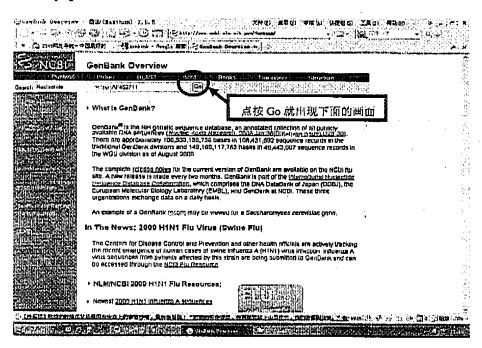


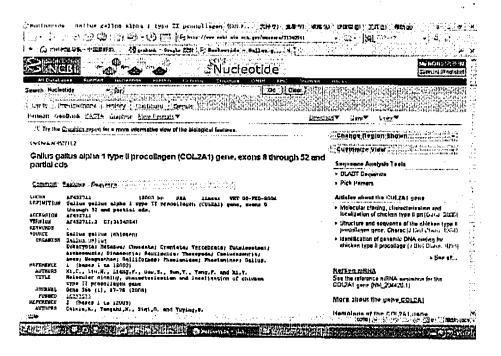
FAX NO. :



3. AF452711 is the genomic sequence of chicken type II collagen. Version AF452711.2 GI: 31340541, is the newest version of the genomic sequence of chicken type II collagen submitted on February 8, 2006. The fragment comprises exons 8-52 and has 12003bp in length. However, version AF452711.1, updated on June 3, 2003, is part of the genomic sequence of chicken type II collagen, with only 5494bp in length. The two are different by 7509 bp. Although it is also shown that version AF452711 was first submitted on November 27, 2001, just like AY046949 and AAK98621 sequence, no corresponding genomic sequence can be found in GenBank (see NCBI-GenBank search page below and detailed record attachments 3 and 4).

Search page for AF452711





I declare that the above statements are true to the best of my knowledge.

Xi Yongzhi, M.D November 16, 2009

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Attachment 1: Search record for AY046949, version AY046949.1 GI:15546069

LOCUS DEFINITION	AY046949 4837 bp mRNA linear VRT 08-FEB-2006 Gallus gallus alpha I typo IIA collagen procursor (COL2A1) mRNA,	itte: 'The serial number of the nucleic ucid sequence
ACCESSION VERSION	complete cds, alternatively spliced. AY046949 AY046949.1 GI:15546069	批准: the sequence of other vertebrate
KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE	Gallus gallus (chicken) Gallus gallus Bukuryotn; Metazoa; Chordata; Craniatn; Vertebrata; Eutelcostomi; Archosauria; Dinosaurin; Saurischia; Theropoda ; Coolurosauria; Aves; Noognathae; Galliformes; Phasianidae; Phasianinae; Gallus. 1 (bases 1 to 4837) Xi, C., Liu, N., Liang, F., Guo, S., Sun, Y., Yang, F. and Xi, Y. Molecular cloning, characterization and localization of chicken	能性: This is the time when the sequence was submitted for the second time, and also is the time when the sequence was first published. 批注:
JOURNAL PUBMED REFERENCE	type [] procollagen gene Gene 366 (1), 67-76 (2006) 16297573 2 (bases to 4837)	批准: The sequence was submitted for the second time after the paper was published.
AUTHORS TITLE	Caixia, X., Yongzhi, X., Sigi, G. and Yiying, S. Direct Submission	推進:
JOURNAL	Submitted (19-JUL-2001) Immunology, Beitaipinglu Hospital, Beitaipinglu, Beijing 100039, China	批准: This is the date when
FEATURES source	Location/Qualifiers	the sequence was first submitted before the withdrawal from the Genebank; but the nucleotide sequence submitted this time was not disclosed, no relevant sequence can be found in Genebank.
<u> Biritti</u>	/gene="COL2A1"	
<u>cos</u>	454307 /gene="COL2A1" /note="lacks exon 2; alternatively spliced" /codon_start=1 /product="ulpha l type IIA collagen precursor" /protein_id="MAK98621.1"	- 1 11: AAK98621 (the serial
	/db_xrof="G1:15546070" /translation="MHGRRPPRSAALLLLLLLLTAAAAAQDRDLRQPGPKGQKGEPGD IKDVVGPRGPPGPQGPAGEQGQRGDRGEKGEKGAPGPRGRDGEPGTPGNPGPPGPPGP PGPPGLGGNFAAQMAGGFDEKAGGAQMGVMQGPMGPRGPPGPTGAPGPQGFQGNP	number of the amino acid sequence corresponding to AY046949)

GEPGEPGAAGPMGPRGPPGPPGKPGDDGETGKPGKSGERCPPGPQGARGFPGTPGLPG VKGHRGYPGLDGAKGEAGAPGAKGESGSPGENGSPGPMGPRGLPGERGRPGPSGAAGA RGNDGLPGPAGPPGPVGPAGAPGFPGAPGSKGEAGPTGARGPEGAQGPRGESGTPGSP GPAGAPGNPGTDGIPGAKGSAGAPGIAGAPGFPGPRGPPGPQGATGPLGPKGQTGEPG TAGPKGEQGPKGETGPAGPQCAPGPAGEEGKRGARGEPGAAGPVGPPGERGAPGNRGF PGQDGLAGPKGAPGERGPAGLAGPKGATCDPGRPGEPGLPGARGLTGRPGDAGPQGKV GPTGAPGEDGRPGPPGPQGARGQPGVMGFPGPKGANGEPGKAGEKGLPGAPGLRGLPG KDGETGAAGPPGPAGPVGERGEQGAPGPSCFQGLPGPPGPPGESGKPGDQGVPGEAGA PGLVGPRGERGFPGERGSPGAQGLQGPRGLPGTPGTDGPKGATGPAGPNGAQGPPGLQ CMPGERGAAG1AGLKGDRGDVGEKGPEGAPGKDGARGLTCP1GPPGPAGPNGEKGESG PPGPSGAAGARGAPGERGEPGAPGPAGFAGPPGADGQPGAKGEQGEPGQKGDAGAPGP QGPSGAPGPQGPTGVTGPKGARGAQGPPGATGFPGAAGRVGPPGPNGNPGPPGPPGSA GKDGPKGVRGDAGPPGRAGDPGLQGPAGPPGEKGEPGEDGPAGPDGPPGPQGLAGQRG 1VGLPGQRGERGFPGLPGPSGEPGKQGAPGSAGDRGPPGPVGPPGLTGPAGEPGREGN PGADGLPGRDGAAGVKGDRGETGFVGAPGAPGAPGAPGPVGPTGKQGDRGETGAQGPM GPSGPAGARGMPGPQGPRGDKGETGEAGERGLKGHRGFTGLQGLPGPPGPSGDQGAAG PAGPSGPRGPPGPVGPSGKDGSNGMPGP1GPPGPRGRSGEPGPAGPPGNPGPPGPPGP PCTGTDMSAFAGLGQTEKGPDPIRYMRADEAAGGLRQHDVEVDATLKSLNNQIESIRS PEGSKKNPARTCRDIKLCHPEWKSGDYWIDPNQGCTLDA1KVFCNMETGETCVYPTPS SIPRKNWWTSKTKDKKHVWFAETINGGFHFSYGDENLSPNTASIQMTFLRLLSTEGSQ NYTYHCKNSIAYMDEETGNLKKAILIQGSNDVEIRAEGNSRFTYSVLEDGCTKHTGKW GKTV1EYRLQKTSRLSIVDTAPMDIGGADQEFGVD1GPVCFL"

sig peptide 45..119

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/gene="COL2A1"

/note="Region: N-propeptide"

misc_feature 387..461

/gene="COL2A1"

/note= Region: N-telopeptide -

misc foature 462., 3485

/gono="COL2A1"

/note="Region: triple helical domain"

<u>misc_feature</u> 3486..3566

/gono="COL2A1"

/noto-"Rogion: C-telopeptide"

misc_feature 3567..4304

/gene="COL2A1"

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ORIGIN

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61 exceedete egeogetete etectentee toetecttet emeggeogee geogeegee

121 nggucogoga cetecgacaa cetggeecca agggacagaa gggngnnece ggngntatta

181 hagaigtigt aggaccocga gggcotocag gaccacaggg cccagcagga gagcagggac

批注: Nucleotide sequence (mRNA) FROM :CCPIT 861066415678

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 361 confacting iggmentiti sonnoncara issonnuncia ettesainan auguonuntu
 421 gagegengat gggtgtcatg cagggaceen tgggccctat gggacceege ggccccctg
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 661 gegetegtgg citecetggg acteetggte tecceggagt gangggeese egaggetace
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 781 caccagatan suncescice eccagaceca tagguececa taggetacea agangagang
 841 gaugheedge ecceteegge geogeoggig etegtggeaa tgaeggtete cetggeeetg
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 961 casagggtga agooggoode actggtgcac gggttcccga gggtgcccaa ggaccccgcg
1021 gegaateegg encoccegge teteceggee eegetggege acceggtaac ceagggaetg
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2521 ctggagecae gggattecce ggagetgeeg geogtgtggg accgeecgge cetaatggta
2581 meconggece eccessacce cetageteta etagennaga eggeceennag ggtgttegts
2641 gagacuccus ecceeegge egtgenggtg neceeggeet ceaaggeece geeggeece
2701 социсиявая явискаяссь яксямувнов иссепцения іссервсике ссессовие
276) cicasgett ggengeneng oglegiatig igggtetece aggeengegt ggigagaga
2821 getteeeegg metgeegggg ceategggag aacetggaaa gennggageg cetggetetg
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2881 cgggtgaccg aggtececc ggeoccgtgg agcecectgg getgacgggt cetaetggag 2941 asccommence orangement cotystates acgretated negrongest specialists 3001 Regtganggg lentegtggt gagaceggee etgtgggbge ecceggtget cetggageee 3061 ctggcgccc cggccctgtt ggtcccactg gamaacaagg agnongaggc gagacgggtg 3121 cacaagggee entructed tetrateces etgaagetes esuautucca satececaag 3181 gacctegtgg tgacanaggt gagacgugag aggetggaga gagagggetg aagggccacc 3241 giggeticae eggicigeag ggicigeeeg gaeeneeegg ceegicigga gaeeaaggig 3301 etgeoggtee egetggteec teeggteece gaggteecee tggteecgte ggeocetetg 3361 geamagates etctamesse atgenessee contession tecessione estassessa 3421 gtggtgaace eggeeetgeg ggteeteetg gaaaceeegg teeteeeggt ceteetggee 3481 cocceggeac eggeategae atgtetgett tigetggact gegteagaeg gagaagggee 3541 degadement degetacats assessads assessed assessed assessed conducting 3601 tggaggtgga tgccaccctc manteceten meantengat tgagageate egeageeeeg 3661 agggeteens gesgaseet geeggaeet geeggaeat canactetge cateeegagt 3721 ggaagagegg agattactgg attgaccega accagggetg cacettggae gecateang 3781 inticigena catggagacg ggcgagacct gcgtctaccc gacccccagc agcatcccca 3841 gganganetg gtggneenge angaeganng neangangen egtetggttt gengagueen 3901 teaseggegg titecactic agetaeggeg atgagaacet gteccccaae accgccagea 3961 tecagatgue ettectgege etcetgteen eegagggete cenganegte nectacenet 4021 gcaagaacag categoctae atggacgagg agacgggcaa cetgaagaaa gccateetea 4081 tecasssate casessests sagatessas ecgassesas caseasstte acctaeasce 4141 tettggagga eggetgeneg namenemetg gennatgggg eangaeggtg ategagtace 4201 ggttgcagaa gacctegege ctgtccattg tagatactgc acctatggac attggeggag 4261 cogatoagga gtttggogtg gatattggod cagtotgott ottgtamman gggttgttgt 4381 guanugaung gunteengee canteceata asageasace agteesece conggaceeg 4441 caegitecca geacaacite igeacigase gualgueneg acceegegee cettegggae 4501 cctccggcgc cgtcaccggg cagactgcga aatacaacca cgggcttata tttatttatt 4561 goottootgg aaggeotggt ttogtagggo gggtggaggt gggaatcaat etggcaggtg 4621 tracegoooc cotoccaca aagggatotg goaascycay glatogogan teccatecce 4681 tecceyleta Leacongong gagtgetaat gtateataca acagamatge tectattett 4741 gtaaacaag totgintiit timenteng tigatataaa aacaacaan mumumett 4801 ttggtggann gtanasaasa савазаванн нанинна

Attachment 2: Search record for AAK98621, version AAK98621.1 GI:15546070

LOCUS AAK98621	ence
ACCESSION AAK98621 VERSION AAK98621.1 GI:15546070 DBSOURCE accession AY046949.1	
DBSOURCE accession AY016919. 1	of other
DBSOURCE accession AY016949. 1	
KEYWORDS . ILL注: This is the tir	
	me when
SOURCE Gallus gallus (chicken) \ the sequence was so	ubmitted
ORGANISM Gallus gallus for the second time,	, and also
Eukaryota: Metazoa; Chordeta; Cramiata; Vertebrata; Euteleostomi; is the time when the	e sequence
Archosauria: Dinosauria: Saurischia: Thoropoda: Coelurosauria: www.first.published.	
Aves; Neognathae; Galliformos; Phastanidae; Phastaninae; Gallus.	Tenanta Sa
REFERENCE 1 (residues 1 to 1420) Corresponding mR	NA serial
AUTHORS Xi, C., Liu, N., Liang, F., Guo, S., Sun, Y., Yang, F. and Xi, Y. number, the first fi	مسرفين يكسون كالمدا
TITLE Molecular cloning, characterization and localization of chicken and the amending d	•
type II procollagen gene sequence are compl	
JOURNAL Gene 366 (1), 67-76 (2006)	
PUBMED 16297573 AAK98621 (its	
REFERENCE 2 (residues 1 to 1420) corresponding amin	io neld
AUTHORS Caixia, X., Yongzhi, X., Siqi, G. and Yiying, S.	all operations.
TITLE Direct Submission	******
JOURNAL Submitted (19-JUL-2001) Immunology, Beitsipinglu Hospital, submitted for the se	CONTRACTOR STATE
Beitaipinglu, Beijing 100039, China after the puper was	
COMMENT Method: conceptual translation supplied by author.	THOUSENCES.
FEATURES Location/Qualifiers 地址:	
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/dh_xref="taxon:9031" before the withdraw	41
/tissuo_typo="stornal" the Genebank; but t	
/dev_stage="17-day embryo" ucid sequence subm	
/country="China" time was not disclos	
/note-"breed: San-Huang" relevant sequence co	4 4 4
Protein 11420 found in Genebank	at the first
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Region 1401147	
/region_name-"triple holical domain"	
Pogion 1148 1174	
Region 11481174 /region_name≃"C-telopoptide"	

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Region
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                     1185..1420
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                     procollagen EMFIalpha, vertebrate collagens alpha(1)III,
                     alpha(1)II, alpha(2)V etc: smart00038"
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     CDS
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                     /note="lacks exon 2; alternatively spliced"
ORIGIN |
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      121 dekaggaqmg vmqgpmgpmg prgppgntga pgpqgfqgnp gepgepgaag pmgprgppgp
      181 pgkpgddget gkpgksgerg ppgpqgargf pgtpglpgvk ghrgypgldg akgeagapga
      241 kgesgspgen gapgpmgprg lpgergrpgp sgaagargnd glpgpagppg pvgpagapgf
      301 pgapgskgoa gptgargpeg aqgprgesgt pgspgpagap gnpgtdgipg akgsagapgi
      361 agapgfpgpr gppgpggatg plgpkgqtge pgiagfkgoq gpkgotgpag pqgapgpage
      421 egkrgargep gaagpvgppg ergapgnrgf pgqdglagpk gapgorgpag lagpkgatgd
      481 pgrpgepglp gargltgrpg dagpqgkvgp tgapgodgrp gppgpqgarg qpgvmgfpgp
      541 kgangepgka gekglpgapg lrglpgkdge tgaagppgpa gpvgergeqg apgpsgfqgl
      601 pgppgppges gkpgdqgvpg eagapglvgp rgergfpger gspgaqglqg prglpgtpgt
      661 dgpkgatgpa gpngaqgppg lqgmpgerga agiaglkgdr gdvgekgpeg apgkdgargl
      721 tgpigppgpa gpngekgesg ppgpsgnaga rgapgargep gapgpaging ppgadgqpga
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     1021 rgetgaqgpm gpsgpagarg mpgpqgprgd kgetgoagor glkghrgftg lqglpgppgp
     1081 sgdqgaagpa gpsgprgppg pvgpsgkdgs ngmpgpigpp gprgrsgepg pagppgnpgp
     1141 pgppgppgtg idmsafaglg qtckgpdpir ymradeaagg lrqhdvevda tlkslnnqle
     1201 sirspegskk npartordik ichpewksgd ywidpnggot idaikvfonm otgotovypt
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1261 pssiprknyw tsktkdkkhy wfaetinggf hfsygdenla phtasiqmtf lrllstegsq 1321 nytyhcknsi aymdeetgal kkailiqgan dveiraegas rftysyledg etkhtgkwgk

1381 tvioyrlakt srlsivdtap mdiggadgef gydigpycfl

Attachment 3: Search record for AF452711, version AF452711.1 GI:28190290

FAX NO. :

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AF152711
LOCUS
                                5494 bp DNA linear VRT 01-FEB-2003
                                                                                                   批准: The nucleotide serial
DEFINITION .
             Gallus gallus alpha I type II procollagon (COL2A1) gene, partial
                                                                                                   number of the genome
             cds.
                                                                                                   批准: the sequence of other
ACCESSION
             AF452711
                                                                                                   vertebrate
VERSION
             AF452711.1 GT:28190290
KEYWORDS
                                                                                                   批注: the time when it was
SOURCE
                                                                                                   submitted for the second time
             Gallus gallus (chickon)
  ORGANISM
             Gallus galius
             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutoleostomi;
             Archosauria; Aves; Noognathae; Galliformes; Phasianidae;
             Phasianinae; Gallus.
REFERENCE
             1 (bases 1 to 5494)
  AUTHORS
             Calxia, X., Yongzhi, X., Siqi, G. and Yuying, S.
             Gallus gallus alpha 1 type IIA collagon precursor (COL2A1)
  TITLE
  JOURNAL.
             Unpublished
REFERENCE
             2 (bases 1 to 5494)
  AUTHORS
             Caixia, X. and Yongzhi, X.
  TITLE
             Direct Submission
             Submitted (27-NOV-2001) Immunology, Beitaipinglu Hospital,
  JOURNAL |
             Beitaipinglu, Boijing 100039, China
                                                                                                   批注: This is the date when
COMMENT
             [WARNING] On Jun 3, 2003 this sequence was replaced by gi:31340541,
                                                                                                   the sequence was first
FEATURES
                       Location/Qualifiers
                                                                                                   submitted before the
                       1..5494
     source
                                                                                                   withdrawal from the
                       /organism-"Gallus gallus"
                                                                                                   Genebank: but the nucleotide
                       /mol_type="genomic DNA"
                                                                                                   sequence submitted this time
                       /db_xref="taxon:9031"
                                                                                                   was not disclosed, no
                       <1..>5494
     gene
                                                                                                   relevant sequence can be
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                                                                                                   found in Genebank.
                       join (<1.. 21, 103.. 156, 239.. 292, 387.. 440, 530., 637,
     mRNA
                                                                                                   批注: It was replaced by
                       746. . 799, 913. . 966, 1235. . 1396, 1489. . 1596, 1906. . 2013.
                                                                                                   sequence GI:31340541 on
                       2174., 2227, 2325., 2432, 2701., 2754, 2864., 2971, 3106., 3159.
                                                                                                   June 3, 2003.
                       3328...3435, 3515...3803, 4211...4398, 4993...5235,
                       5348..>5494)
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     CD5
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                       2174., 2227, 2325., 2432, 2701., 2754, 2864., 2971, 3106., 3159,
                       3328. . 3435, 3515. . 3803, 4211. . 4398, 4993. . 5235, 5348. . 5494)
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/protein_id= [AA033039.1]

/db_xref="G1:28190291"

Httl: The serial number of the corresponding amino ucid sequence, the first filing date and the amending date of the sequence are completely consistent with those of AF452711 (its corresponding nucleotide sequence)

ORIGIN

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批注: The nucleotide sequence (part sequence of the genome)

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1741 cggagetect ttttecceae caggageege tggtgeaagg ettanageeg gggeaggaaa
1801 accatenging gitattigtt gengagggit eigggagees tanamanegg ggaagggges
1861 gegetggggt eteteceact catgemente titeceatet titeagggaga acetggaaag
1921 chaggageue chagetetse gggtgaeega autoecceeg geoeegtggg ecceetggg
1981 ctgacaggto ctgctgguga acccgggege gnegtuugea aaaccccaca gentencage
2041 ggcaccagge atcaccaacc contggouds gctcagctec cagagetecc cygtgtettt
2101 ttetecages etgasaggag actitgeses sutcetgete encogggtt gtsucutees
2161 cttttected tagggeauce etggtgetga eggteeccea ggeagggatg gegeagetgg
2221 estgangets agetteceat seseteceas tiggenules costecest secanaget
2281 gtggggttii gesesgatet gacetetetg tigletgete geagggtgat egiggigs
2341 consecret agatactece agracters agacectas agaceceas
2401 ccactggana neauggagac agargegaga eggtgagtge tggencuagg gtttagggtt
2461 tagggleice ttatggetga naatgtgeng gggtteeest caaggttigt teeligence
2521 agtgotgagt geatttasag atgotgtgag geneemeng etgetgattg tenetgttge
2581 connators garagegue algungotan creagacace cocamules canatteats
2641 gettegaggt ggtgetletg gtegetggea cettetgatg teetttitt etceetgeag
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2821 ggtetgeene celgnyceeg acacageest gteccenett taggyteece saggaceteg
2881 tggtgacana ggtgagacgg gagaggetgg agagagagg etgaagggee accreggett
2941 cacceptote cagegorate coggacouc estaagting titigggenge actgagood
3001 cocccepta egatgegget cetttggggt etetgtggee accgaggete tgtetggeee
3061 aaagtgetga eegengaget gigaeeacee eggetteete eteagggeee gtetggagne
3121 chaggigets cossicose issicotec ssicotans inautotica essignisti
3181 tggggtggtg ganggggang gagcagcagt ggcctccctg ggcacctgca gcctctgttc
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3301 ceteccegit tigggetet etcetngggt neceetggte cegicggece etetggeasa
3361 gacgatata acggaatgae aggacaata ggtaataag gtaacagtgg saggustgul
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3601 gachhagaan kkeecemace ceateogeta catgggggen gnegnggegg ceggaggget
3661 geggengene gnogtggagg tggaegeeac ceteauatec etcaacaate agattgagag
3721 entergence coegagaget conagangan coetgoong acetgooneg neutenmet
3781 etgecatece gagtgganga geggtaugag etcegegtge etctecegte etcecetett
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4261 stattetsca acatsgague aggegagace tyestetace esacceceas engentecee
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Attachement 4: Search record for AF452711, version AF452711. 2 GI:31340541

LOCUS AF452711 12003 bp DNA linear VRT 08-FEB-2006 DEFINITION Gallus gallus alpha i type II procollagen (COL2A1) gene, exons 8 through 52 and partial cds. ACCESSION AF452711 VERSION. AF452711.2 GT:31340541 KEYWORDS SOURCE Gallus gallus (chicken) ORGANISM Gallus gailus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Archosauria; Dinosauria; Saurischia; Thoropoda; Coelurosauria; Aves; Neognathae; Calliformes; Phasianidae; Phasianinae; Gallus. REFERENCE 1 (bases 1 to 12003) Xi, C., Liu, N., Llang, F., Guo, S., Sun, Y., Yang, F. and Xi, Y. AUTHORS TITLE Molecular cloning, characterization and localization of chicken type II procollagen genn JOURNAL Gene 366 (1), 67-76 (2006) РОВМЕО 16297573 REFERENCE 2 (bases I to 12003) AUTHORS Caixia, X., Yongzhi, X., Slqi, G. and Yuying, S. TITLE Gallus gallus alpha i type IIA collagen procursor (COL2AI) JOURNAL. Unpublished REFERENCE 3 (bases 1 to 12003) AUTHORS Caixia, X. and Yongzhi, X. TITLE Direct Submission Submitted (27-NOV-2001) immunology, Beltaipinglu Hospital. JOURNAL Reitaipinglu, Boijing 100039, China REFERENCE 4 (buses 1 to 12003) **AUTHORS** Caixia, X. and Yongzhi, X. TITLE Direct Submission Submitted (03 JUN-2003) Immunology, Boitnipingly Hospital. JOHRNAL. Beitaipinglu, Beijing 100039, China REMARK Sequence update by submitter COMMENT Un Jun 3, 2003 this sequence version replaced gi:28190290. **FEATURES** Location/Qualiflers 1..12003 source /organism="Gallus gallus" /mol_type="genomic DNA" /db_xref="laxon:9031" <1..>12003 gono /gono="COL2A1" mRNA join (<1., 54, 179., 232, 340., 393, 494., 547, 646., 699. 786. . 830, 941. . 994, 1086. . 1130, 1244. . 1297, 1387. . 1485,

Ittle: The nucleotide serial number of the genome

批准: The sequence of other veterbrate

Httl: This is the sequence submitted for the last time after the paper was published.

批准: This is the date when the sequence was submitted for the first time; but the nucleotide sequence submitted this time was not disclosed, and no relevant sequence can be found in Genebank. CDS

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1684. . 1728, 2096. . 2194, 3080. . 3133, 3542. . 3649, 3738. . 3791,
3883...3981, 4664...4717, 4800...4898, 4981...5034, 5159...5212.
5490. . 5543, 5623. . 5676, 5791. . 5835, 6098. . 6196, 6289. . 6396.
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7255. . 7308, 7422. . 7475, 7744. . 7905, 7998. . 8105, 8415. . 8522,
8683. . 8736, 8834. . 8941, 9210. . 9263, 9373, . 9480, 9615. . 9668.
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ORIGIN.

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